



## GUIDE SPECIFICATION

The following Guide Specification is intended to be modified and included into the Contract Documents. Items to be modified should be done by the Project Manager.

### PART 1 - GENERAL

#### 1.1 SCOPE OF WORK:

1.1.1 Description: Work specified in this Section includes air filters used in HVAC systems.

#### 1.2 QUALITY ASSURANCE:

##### 1.2.1 Codes and Regulations:

Test Method for All Particulate Filters: ASHRAE Standard 52-76.

### PART 2 - PRODUCTS

#### 2.1 GENERAL:

##### 2.1.1 Materials: Fixed Media Type Filters, General.

- .1 Prefilters: 2-1/4" (nominal) thick, roll media filter with flame retardant adhesive coated random fiber media and approximately 10% dust spot efficiency (88% arrestance) per ASHRAE Standard 52-76 Test Method with synthetic atmospheric dust; Drico CFP, American Air Filter AMER-glas.  
-OR-
- .2 Prefilters: 24" x 24" x 2" thick, pleated media filter with 25% minimum dust spot efficiency (30% nominal efficiency) (96% arrestance) per ASHRAE Standard 52-76 Test Method with synthetic atmospheric dust; Farr "30-30", Cambridge "Aeropleat", "Servaire Mark 80" or "New-Aire HC 40". Prefilter latches shall be designed for easy access and subject to prior approval.
- .3 Final Filters (LUWA 85% Part #FP-85-24 (24 x 24 x 12) (NOM) deep bag type filters.  
-OR-
- .4 Final Filters (Pleated Media Type): 12" deep rigid fixed pleated media type filters supported by galvanized wire frame; 80% minimum.
- .5 Filter Frames: Stationary assembly built up of individual stationary filter frames, with gaskets and with latching devices to hold replaceable media and holding frame firmly in the stationary frame; individual frames formed steel angle type made of steel, No. 16 gauge at least 3" deep, permanently assembled with solid rivets. Where height or width exceeds 6', provide stiffener of No. 16 gauge sheet metal with hemmed exposed edge, 8" wide, full height and width of filters on 6' centers. Finish of all metal parts of frame shall be hot dip galvanized with additional high build epoxy finish 0.020" minimum thickness. Gasketing shall be included, with tight seal to filter face.
- .6 Filter Airflow Resistance Gauge: Dwyer "Mark II" Model 41-2; molded plastic; .20-0-2.4" w.c. range; inclined tube pattern.
- .7 Initial Resistance: Shall not exceed resistance scheduled.



2.1.2 Prefilter, Fixed (Pleated) Media Type Filters, with Cabinet:

- .1 Manufacture: By a firm specified for Fixed (Pleated) Media Type Filters, General.
- .2 Filter Media: Same as specified for 2" Fixed (Pleated) Media Type Filters.
- .3 Filter Cabinets: American Air Filter Type SA "Dri-Pak" or Farr "Glide-Pack" cabinet; 18 gauge metal filter casing, slide-in airtight sealing tracks; access doors, duct connected filter cabinet inlet and outlet.
- .4 Filter Airflow Resistance Gauge: Same as Fixed (Pleated) Media Type Filters, General.

**PART 3 - EXECUTION**

**3.1 INSTALLATION**

- 3.1.1 Temporary Filter Media: Install during supply system balancing in fixed filter media frames; upper limit resistance of temporary media to be 125% of combined initial design resistance across the fixed media filter sections.

Also provide a temporary filter in system when fan is in operation prior to balancing in order to keep the ductwork clean; resistance shall be as scheduled for permanent filters. Temporary filters shall be equivalent to permanent filters in style and Media.

- 3.1.2 Fixed Media Type Filter Frames: Assemble and install individual frames with rivets after placing 1" wide weather-stripping gaskets between filter frames. Seal filter frames to ductwork as specified under Sheetmetal Work. Provide 1" space between prefilter bank and final filter bank for static pressure probe.

- 3.1.3 Airflow Resistance Gauges: Connect gauges with copper tubing per manufacturers recommendations; connections at gauge with a vent valve assembly to permit zeroing adjustments. Install a separate gauge across both the prefilter and final filter, i.e., one across the prefilter and one across the final filter.

- 3.1.4 Filter access and clearance: Provide 2'-6" minimum access to filter bank that allows for replacement of filter elements, without the need for special tools. Provide clearance downstream of bag filters to preclude early bag failure from contact with structure. Provide a fixed cat walk for filter bank over 6'-0" tall.

- 3.1.5 Permanent filter media shall consist of the following:

- 3.1.5.1 Preferred combination of roll media and extended media bag filter with initial static pressure drops at 500 FPM of 0.10" and 0.39" of w.g, respectively.

- 3.1.5.2 Alternate combination of 2" pleated media prefilter and extended media bag filter with initial static pressure drops at 500 FPM of .38" and .39" w.g. respectively. (Must be approved by The Project Manager.)

- 3.1.5.3 Heating and Cooling coils shall be protected by either roll media or 2" pleated media.

- 3.1.5.4 Where geometry or use dictates, prefilters shall be cabinet type.

**End of Appendix 3 - C**